Health information technology utilization among skin cancer patients

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Background: Health information technology (HIT) refers to the use of online health resources to perform tasks related to one's medical care. HIT utilization is linked to improved patient outcomes, however, relatively little is known regarding HIT utilization in the context of skin cancer management. Methods: We conducted a retrospective cross-sectional review of the National Health Interview Survey (NHIS) from 2011-2018 with summary statistics and multivariable logistic regression, we analyzed associations between sociodemographic characteristics and HIT utilization among patients reporting a skin cancer diagnosis. The primary outcome was whether patients scheduled healthcare appointments online. Secondary outcomes were whether patients looked up health information online, communicated with healthcare providers by e-mail, and filled prescriptions electronically. Results: From 2011-2018, the proportion of patients who scheduled healthcare appointments online increased from 43.6% to 48.89% to 56.4% (p<0.05 for all). Patients with income below 200% of the federal poverty level and patients without a bachelor's degree were less likely to look up health information online, communicate with a healthcare provider by e-mail, or fill a prescription electronically (p<0.05 for all). Conclusions: There are substantial differences in HIT utilization of skin cancer patients across sociodemographic lines. Interventions aimed at increasing HIT utilization among disadvantaged groups may reduce health disparities related to skin cancer.

Association of occupational exposures with disease manifestations in systemic sclerosis

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Systemic sclerosis (ScS) is thought to be induced by an environmental trigger in a genetically predisposed host and leads to significant mortality from internal organ involvement. In this study, we compare the ScS disease features for different occupational exposures of ScS patients in Canada. Data on 15,625 patients was extracted from the Canadian Scleroderma Research Group cohort over the years 2003-2019. Gender, occupational exposure history, symptom severity, antibody profile and mortality data were collected. Logistic regression models were used to determine clinical characteristics associated with each occupational exposure. Occupational exposures were reported in 494 patients, predominantly to organic solvents (307), industrial fumes (139), silica (101), heavy metals (93), asbestos (87) and epoxy resins (83). Certain exposures were more prevalent in males compared to females (OR 1.5 vs 1.6 male to female ratio). Silica exposure was associated with higher prevalence of diffuse ScS (OR 1.19, CI 1.08-1.22) and increased mortality (OR 1.15, CI 1.06-1.25). Exposure to organic solvents was associated with renal disease (OR 1.03, CI 1.01-1.08) and asbestos with increased mortality (OR 1.16, CI 1.06-1.26). In addition, industrial fumes and heavy metal exposure were associated with higher prevalence of intestinal lung disease (ILD), renal disease and mortality. Epoxy exposure was associated with ILD, renal disease, diffuse ScS and anti-RNA polymerase III antibody positivity. Consistently, lower frequency of anti-centromere antibody was noticed in patients exposed to silica, heavy metal or industrial fumes. This study revealed that ScS patients with previous occupational exposure to organic solvents, industrial fumes, silica, heavy metals, asbestos and epoxy resins are predominately males and exhibit more severe disease phenotype and/or mortality. While effective workplace protection strategies are needed, it remains imperative to obtain a detailed occupational history in ScS patients to focus on secondary prevention and risk education.